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February 27, 2017

via e-mail at: clay.rodgers@waterboards.ca.gov

Mr. Clay Rodgers Central Valley Regional Water Quality Control Board 1685 E Street Fresno, CA 93706

Re: Tentative General Orders for Waste Discharge Requirements for Oil Field Discharges to Land

Dear Mr. Rodgers:

The Western States Petroleum Association (WSPA) is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in California and four other western states. WSPA appreciates this opportunity to provide comments to the Central Valley Regional Water Quality Control Board (CVRWQCB or Regional Water Board) on the Tentative General Orders (GO) applicable to the discharge of produced water and other oil field wastewaters into ponds, sumps, or pits.

In reviewing all three Tentative General Orders, WSPA submits the following comments applicable to GO1, GO2, and GO3.

Prohibition of Produced Water from Wells that have Undergone Well Stimulation Treatment

As expressed in our earlier comments submitted on January 9 and January 13, as well as our comments submitted prior to and at the August 2016 Board hearing, WSPA continues to object to the inclusion of Prohibition A.5 in the Tentative General Orders, as we believe it reflects an inaccurate and unsupported interpretation of Section 1786(a)(4) of the Division of Oil, Gas and Geothermal Resources' (DOGGR) Well Stimulation Treatment (WST) regulations. As explained during our testimony at the August 2016 hearing, we believe the reference to "produced water" in Section 1786(a) refers to produced water that is contained within the flowback at the conclusion of a well stimulation treatment, but before the well is returned to production mode. As specified in Section 1780(c), "a well stimulation treatment commences when well stimulation fluid is pumped into the well, and ends when the well stimulation treatment equipment is disconnected from the well." Thus, once the WST equipment is disconnected from the well, the well stimulation treatment has terminated, and the WST regulations are no longer applicable. In our view, produced water generated from wells that are operating in production mode was never intended to be subject to the prohibition against storage in sumps or pits in Section 1786(a)(4).

That being said, we are pleased to see the progress that has been made in that the Regional Water Board no longer views Section 1786(a) as imposing an absolute prohibition on discharge to land of

Mr. Clay Rodgers February 27, 2017 Page 2

produced water from wells that have ever undergone well stimulation treatment.¹ Based on the revised language in the Tentative General Orders, an interim resolution of our concerns appears to be in place, subject to certain important clarifications to ensure that the Regional Water Board's intent is not subject to misinterpretation. These revisions to the Tentative WDRs, as well as the accompanying documents, are necessary to make it clear that any future prohibition would only apply in circumstances where the CVRWQCB concludes that the discharge poses a threat to groundwater.

It is WSPA's understanding, based on the express language of the Provisions of each General Order, that the discharge of produced water to ponds from wells that have undergone well stimulation treatment will not be prohibited so long as there is sufficient data, gathered over a three-year timeframe (or longer, if approved by the Executive Officer), to show that the produced water does not contain WST fluids in concentrations that could adversely affect the beneficial use of groundwater. (See GO1, Provision E.7; GO2, Provision E.7; and GO3, Provision E.8). We understand that the Regional Water Board has discussed this revised interpretation of Section 1786(a) with DOGGR, and we request confirmation that DOGGR concurs with the Regional Water Board's approach to implementation of any future prohibition.

We note, however, as currently drafted, the pertinent Findings in the Tentative WDRs (i.e., Finding 47 of GO1 and GO2, and Finding 46 of GO3) state that the Discharger must "demonstrate that the produced water does not contain WST fluids or related wastes." First, the Findings contain no reference to the important qualification discussed in the preceding paragraph. Read alone, the Findings could be interpreted to require the Discharger to prove the complete absence (i.e., no detectable concentration) of any WST chemical or related waste in the produced water. This is inconsistent with Provisions E.7 and E. 8. Such an overwhelming "negative" burden — were that the Board's intention — could result in imposition of the prohibition whenever <u>any</u> WST chemical or related waste is detected in the produced water at any detectable concentration, even if there is no plausible risk to groundwater or even if there is no groundwater at all.

Second, we are confused by the reference to "other related wastes" in both the Findings and Provisions. Section 1786(a)(4) does not contain this language, and there is no basis for expanding the prohibition beyond what the WST regulations themselves provide. Morevoer, the term "related waste" is unclear, which only compounds our concern over its inclusion in the tentative orders. We believe this term should be deleted altogether from the "Scope," "Prohibitions," and "Provisions" sections of all three Orders as reflected in WSPA's proposed revisions contained herein.

Based on our discussions with Regional Water Board staff, and the more specific risk-based language of the Provisions, we do not believe the Findings accurately reflect the Board's intent. To resolve this inconcistency, we recommend that the Finding 47 of GO1 and GO2, and Finding 46 of GO3, be revised as follows:

from those wells.

¹ WSPA is not waiving any claims or defenses relating to DOGGR's original interpretation of Section 1786(a) and continues to disagree with that interpretation in its entirety. Further, regardless of how Section 1786(a) is interpreted, WSPA maintains that it should not apply retroactively to wells that underwent well stimulation treatment prior to July 1, 2015, the effective date of DOGGR's WST regulations, or to discharges of produced water

This General Order contains a <u>future</u> prohibition for the discharge of produced wastewater that contains concentrations of well stimulation treatment fluids or related wastes where concentrations of WST fluids could adversely affect beneficial uses of groundwater. A three-year time schedule is provided for the Discharger to either a) develop an alternate disposal method <u>for such produced water</u> or b) demonstrate that the produced water does not contain well stimulation treatment fluids <u>in concentrations that could adversely affect beneficial uses of groundwater</u>. Given the large number of wells that have received <u>or are expected to receive</u> a well stimulation treatment over time and <u>the large number of stimulated wells</u> that discharge produced wastewater to land, a time schedule is necessary to allow the Discharger to comply with the prohibition, <u>either by developing an alternate disposal method or by demonstrating that the discharge will not pose a threat to water quality</u>, without imposing an unnecessary economic burden.

Further, WSPA believes that the demonstration required by Provisions E. 7 and E.8 should be made on the basis of the quality of the produced water that is discharged into a pond, rather than from any particular well. Produced water from multiple wells is typically commingled and routed to the field's water handling system for oil/water separation or other treatment prior to discharge to land. WSPA suggests that Water Board staff consider alternative wording of the Tentative General Orders to include monitoring of the actual discharge points (ponds) rather than particular WST wells.

WSPA believes that Prohibition A.5 should be revised to clarify that discharges of produced water to ponds during the time schedule provided by Provisions E.7 (GO1 and GO2) and E.8 (GO3) are authorized and are not in violation of the prohibition. The Regional Water Board should provide concurrence that the Discharger is considered to be in compliance with the General Order and with Section 1786(a) so long as the requirements of Provision E.7 or E.8, as appropriate, are satisfied. WSPA suggests the following language to clarify this point (please note that we have also removed the reference to "related wastes" from the prohibition, per our comment above):

Commencing three years from the effective date of this General Order, the discharge of produced wastewater from wells containing well stimulation treatment fluids and/or related wastes is prohibited in accordance with the requirements of except as otherwise provided by Provision E.7 [or E.8].

Similarly, the introductory sentence to Provision E.7 and Provision E.8 should be revised as follows:

If the Discharger accepts produced wastewater from wells that have been stimulated, it shall achieve compliance with Prohibition A. 5 by no later than 36 months from the date of the NOA or such longer period as may be allowed by the Executive Officer, as specified in Task 2 below. Discharges that occur during this three-year period are authorized by this General Order so long as the Discharger complies with the tasks set forth below. A Discharger who demonstrates that the discharge of produced wastewater from stimulated wells, at the point of discharge to land, does not contain well stimulation fluids in concentrations that could adversely affect beneficial uses of groundwater, or who develops an alternate disposal method, shall be deemed in compliance with Prohibition A.5.

Status Reports for BPA Work Plan Implementation

General Order (GO) 3 requires the implementation of a Basin Plan Amendment (BPA) Work Plan and submittal of deliverables, including providing regular (quarterly) progress reports. See Provision E.4(b), Task 6; IS-19, Provision 6. As recommended by the Regional Water Board, the implementation of the BPA Work Plan will most effectively be facilitated by an industry group for specific area(s) along the western San Joaquin Valley and is likely to take up to 5 years to accomplish. We propose semi-annual progress reports, rather than quarterly reports, as more appropriate for updates on the work plan. This is consistent with the semi-annual progress reports required of the WST fluid demonstration. See Provision E.8, Task 2.

Consistency of Definitions with Other State and Regional Regulatory Agencies

As stated in previous comment letters, WSPA believes that the terms commonly used in oil and gas production should be defined consistently in the regulations of all agencies that have jurisdiction over oil and gas operations.

One common industry term that is used in the Tentative General Orders is "secondary containment." Finding 53 (GO1 and GO2) and Finding 52 (GO3) of the Tentative General Orders inappropriately restrict this term to discharges that occur under "emergency" conditions. Secondary containment features are widely used throughout the industry to contain leaks, drips and spills that occur under routine operating conditions, as well as releases that occur under emergency conditions. Further, not all process upsets or failures constitute emergencies. We note that "secondary containment" is defined in Attachment A (Definition of Terms) as "an engineered containment used only during operational upsets or failures that are beyond the control of the Facility operator." While we believe this definition is still too narrow, it appears to encompass more than the "emergency" conditions described in the Findings. At a minimum, the language in the Findings should track the definition provided in Attachment A. So long as the fluids are promptly removed from secondary containment features, their lack of potential risk to groundwater is the same, regardless of how they came to be present in the secondary containment feature.

WSPA also recommends that the Tentative General Orders be revised to more clearly state that discharges into secondary containment features (however defined) are not subject to the requirements of these proposed Orders. Findings 53 (GO1 and GO2) and Finding 53 (GO3) describe discharges to secondary containment units, but other than the reference to secondary containment structures in the Discharge Specifications 4 (GO1), 2 (GO2) and 3(GO3), such units do not appear to be regulated under the Orders, leaving their status very unclear.

Monitoring and Reporting Requirements

Under the Tentative General Orders, operators would be required to monitor and report "all" chemicals used in every aspect of oil production. WSPA still believes that this requirement is overreaching and not necessary to ensure that groundwater is not adversely affected as a result of discharges into a surface pond. The analyses conducted for the Section 13267 requirements should be used to realistically determine the need, if any, for groundwater monitoring and effluent testing. Any groundwater monitoring should be tailored to compounds discovered in the effluent that would be reasonably expected to affect the beneficial use of groundwater (in areas where it actually exists).

Mr. Clay Rodgers February 27, 2017 Page 5

The analyses should only use approved EPA test methods. Unnecessary monitoring and testing adds significant cost and reporting time with little to no positive environmental benefit. WSPA also suggests adding language that clearly indicates that after operators submit two years of quarterly monitoring events where the average quarterly monitoring data is at or less than the average background groundwater quality, then that facility can adjust and submit annual reports thereafter. Further, unlike SB4 chemicals, vendors have no legal obligation to disclose all the chemicals in their treatment additives, making the obligation to disclose individual chemicals virtually impossible to achieve.

The Monitoring and Reporting Requirements are imposed regardless of risk, availability of analytical method, suitable detection limits or environmental fate. The protocol for evaluation of pesticides under the Regional Board's Irrigated Lands Program, for example, contains a decision tree for whether monitoring of a specific chemical is warranted. Similar monitoring/analytical off ramps should be offered in the General Orders for chemicals that meet these same criteria.

Produced Water for Dust Control and Solids Disposal Specifications

During the various meetings industry has had with the Regional Water Board, staff has indicated that these General Orders do not apply and are not to be the regulatory means to provide coverage for road mix application and dust control where these are the only discharges to land. These separate discharges will be addressed under separate permit processes or waivers of waste discharge requirements (WDR). To clarify this point, GO1 Finding 3 should be revised to indicate the coverage for dust control is not provided by these orders. This clarifying statement should be also included in the Information Sheets. WSPA proposes changes in the language (GO1 Finding 3; GO2 Finding 3) to read:

This General Order also does not provide coverage for road mix <u>and dust control</u> <u>applications</u> to land where these are the only discharges to land...

The Solids Disposal Specifications section should be clarified to apply only to solids related to the operation of produced water ponds and associated facilities covered by General Orders. As written, it could be read to apply to solids handling at oil and natural gas facilities and fields generally, even those that do not operate ponds.

Additionally, the Tentative General Orders contain overly burdensome and unnecessary requirements for reporting offsite disposition of solid waste. Such reporting would be duplicative of existing reporting requirements applicable to waste generators as well as to operators of disposal facilities. WSPA recommends the Regional Water Board delete the requirement to report offsite waste disposal activities as part of the General Orders.

Lack of Cost Effectiveness Analysis

During the development of the General Orders, WSPA, along with the California Independent Petroleum Association (CIPA) and the Independent Oil Producers Agency (IOPA) called for an indepth cost-analysis of the new requirements on oil producers. To date, we have not seen this comprehensive cost-analysis. Therefore, WSPA members compiled their own cost estimates for the various requirements of the Tentative General Orders. That data was included with our last comment

Mr. Clay Rodgers February 27, 2017 Page 6

letter dated January 13, 2017. Based on the cost estimates, we still believe the following requirements should be removed from or modified in the Tentative General Orders: 1.) groundwater monitoring requirements should be limited to annual reporting after completion of 2 years of quarterly monitoring; and 2) groundwater monitoring requirements should allow for the use of alternative monitoring data (i.e. the USGS data, CV SALTS data, Irrigated Lands data, etc.). The consideration for economic impact, specifically in Kern County, should override these burdensome requirements that are not necessary to protect underlying groundwater. WSPA believes these requirements act as a hindrance to state oil extraction and are not necessary for environmental protection.

Additional Time to Prepare NOI

Given the large amount of information required by the Notice of Intent (NOI), WSPA requests the Regional Water Board increase the time allowed for submittal of an NOI from 30 days to 60 days after adoption the General Orders.

WSPA appreciates CVRWQCB's careful consideration of our comments and we look forward to your responses. If you have any questions, please contact me at (661) 321-0884 or email jpitcher@wspa.org.

Sincerely,

cc: Dale Harvey, CVRWQCB

Suzanne Noble, WSPA